

Date: Monday March 8, 2004

Time: Noon - 1pm

Place: 144 Conference Room

Speaker:

Douglas Caldwell

Title: Status of the Kepler Mission – A Search for Habitable Planets

Abstract:

The Kepler Mission is specifically designed to survey the extended solar neighborhood to detect and characterize hundreds of terrestrial and larger planets in or near the habitable zone. The scientific goal of the Kepler Mission is to explore the structure and diversity of planetary systems. The Kepler instrument is a 0.95-meter aperture differential photometer with a 105 deg² field of view. It continuously and simultaneously monitors brightnesses of 100,000 main-sequence stars brighter than 14th magnitude in search of planetary transits. From measurements of the transit period, change in brightness and known stellar type, the planetary size, orbital size and characteristic temperature are determined, answering the question of whether or not the planet is habitable.